

## WHAT IS CLAIMED IS:

1. A radio transmission method for sending or receiving control data and useful data, comprising:
  - transforming the control data from a first format adapted to a first radio transmission method into a second format adapted to a second radio transmission method; and
  - modulating the control data in the second format onto a carrier frequency.
2. The radio transmission method as recited in claim 1, wherein the first radio transmission method is a frequency-hopping-spread-spectrum transmission method, and the second radio transmission method is a CDMA transmission method.
3. The radio transmission method as recited in claim 1, wherein the second radio transmission method is a frequency-hopping-spread-spectrum transmission method, and the first radio transmission method is a CDMA transmission method.
4. A radio transmission system, comprising:
  - a baseband module for transmitting useful data using control data and configured for a first radio standard;
  - a high-frequency section for transmitting useful data using control data and configured for a second radio standard, the second radio standard being different from the first radio standard; and
  - an adapter circuit configured to transform the control data of one of the first and second radio standards into control data of the other of the first and second radio standards.
5. The radio transmission system as recited in claim 4, wherein the baseband module is configured for an FHSS transmission system and the high-frequency section is configured for a CDMA transmission system.
6. The radio transmission system as recited in claim 4, wherein the baseband module is

configured for a CDMA transmission system and the high-frequency section is configured for an FHSS transmission system.

7. The radio transmission system as recited in claim 4, wherein the baseband module is configured for the Bluetooth standard.

8. The radio transmission system as recited in claim 4, wherein the adapter circuit includes a memory unit storing assignment instructions for a plurality of pseudorandom noise code sequences corresponding to a plurality of hopping sequences.

9. The radio transmission system as recited in claim 4, wherein the adapter circuit is configured to generate parameters for a pseudorandom noise code sequence from parameters for a hopping sequence.

10. The radio transmission system as recited in claim 4, wherein the adapter circuit is configured to generate parameters for a hopping sequence from parameters for a pseudorandom noise code sequence.

11. The radio transmission system as recited in claim 4, wherein the adapter circuit includes a shift register for generating at least one of parameters for pseudorandom noise code sequences and parameters for hopping sequences.

12. The radio transmission system as recited in claim 11, wherein the adapter circuit is suited for generating parameters for gold codes as pseudorandom noise code sequences.

13. The radio transmission system as recited in claim 4, wherein the high-frequency section is configured to realize the CDMA transmission method and the FHSS transmission method simultaneously within one transmission, in superimposed fashion.